

CLAIMS

1. A trimming locking circuit for a an integrated circuit with a programmable fuse array, comprising:
 - a metal fuse and a supply resistor coupled in parallel, and coupled between a a second power supply and a programmable fuse array supply line;
 - a blocking diode coupled in reverse bias between said metal fuse and said supply resistor and a first power supply;
 - wherein said metal fuse, said supply resistor and said diode adapted to electrically isolate a load from over voltage conditions present on said second power supply.
2. A trimming locking circuit as claimed in claim 1, further comprising:
 - a first ESD device coupled between said first power supply and ground, and a second ESD device coupled between said second power supply and said ground; said ESD devices operable to inhibit an electro-static discharge on either said first or second power supplies.
3. A trimming locking circuit as claimed in claim 1 wherein said supply resistor having a resistance value selected to reduce on over voltage condition present on said second power supply.
4. A trimming locking circuit as claimed in claim 1, wherein said metal fuse is selected to become an open circuit upon the application of a selected amount of current.
5. A trimming locking circuit as claimed in claim 1, wherein said metal fuse, said supply resistor and said diode configured to perform an after assembly trim procedure using said programmable fuse array and said second power supply.

- 1 6. A trimming locking circuit for an integrated circuit with a programmable fuse
2 array, comprising:
3 a metal fuse and a first blocking diode coupled in series to an input pin;
4 a second blocking diode and a supply resistor coupled in parallel to a power
5 supply;
6 wherein said metal fuse, said supply resistor and said blocking diodes adapted to
7 electrically isolate a load from over voltage conditions present on said input source.
- 8 7. A trimming locking circuit as claimed in claim 6, further comprising:
9 a first ESD device coupled between said power supply and ground, and a second
10 ESD device coupled between said input pin and said ground; said ESD devices operable
11 to inhibit an electro-static discharge on either said power supply or said input pin.
- 12 8. A trimming locking circuit as claimed in claim 6, wherein said supply resistor
13 having a resistance value selected to reduce on over voltage condition present on said
14 input pin.
- 15 9. A trimming locking circuit as claimed in claim 6, wherein said metal fuse is
16 selected to become an open circuit upon the application of a selected amount of current.
- 17 10. A trimming locking circuit as claimed in claim 6, wherein metal fuse, said supply
18 resistor and said diode configured to perform an after assembly trim procedure using said
19 programmable fuse array and said second power supply.